

# Index to Volume LXXII—1988

## How to Use This Index

Items are listed according to the monthly column in which they appeared and/or under any category(s) that generally describes them. Examples: "The Spiderweb Quad" is listed under Antennas and Transmission Lines and under Technical. "ARRL Diamond Jubilee Award" is listed under Contests and Operating Activities, Feature Articles and in the Mini Directory at the end of this index.

## ANTENNAS AND TRANSMISSION LINES

ATU, A Simple Resonant (DeMaw): 26, Sep  
Ammeter for Open-Wire Lines, A Relative RF (Lau): 15, Oct  
Coplanar-Twin-Loop Antenna, The (Villard): 29, Sep  
Elevated Vertical Antenna Systems (Christman): 35, Aug  
Hidden Antennas—One Ham's Solution (Neu): 33, Mar  
Log of a 40-Meter Zepp (Newkirk): 50, Apr  
Log-Periodic Dipole Arrays for the Upper HF Bands (Collins): 21, Nov  
Low-Noise Receiving Antennas, On Ground (DeMaw): 30, Apr  
Preamplifier for 80- and 160-M Loop and Beverage Antennas (DeMaw): 22, Aug  
Roof-Rack Antenna, The Mobile (Dodd): 29, Nov  
RX Noise Bridges (Belrose): 34, May  
Spiderweb Quad, The (Suominen): 18, Oct  
Transmitting Loops Revisited (DeMaw): 27, Mar  
12-Meter Beam, Build a (Button): 21, Oct  
432-MHz Yagis, An Optimum Design for (Powlishen): 24, Jan

## CANADIAN NEWSFRONTS

Call Directory, The Canadian Amateur: 67, Mar  
Licensing Structure, DOC Proposes New: 73, May  
Ravencroft Decision, The Jack: 77, Apr  
Skitrek Communications, Canada-Soviet Agreement Clears Way for: 62, Jan  
430-450 MHz Update: 69, Feb

## CLUB SPECTRUM

Club President's Workbook, New! 1988-89 ARRL: 92, Dec  
Clubs: Share Your Best Publicity/Recruiting Ideas, and Win a Computer: 58, Oct  
Field Day Frolics Attract Young Hams: 71, May  
Grand Rapids ARA Spreads Christmas Cheer: 71, Jan  
Youth and New Hams Speak Out On Club Activities: 72, May  
"200" Stations Emit a Clear Message: We Love to Communicate! 82, Jul

## CONTESTS & OPERATING ACTIVITIES

CAN-AM Contest Results, 1987 CRRL: 92, Sep  
CAN-AM Contest, Rules 1988 CRRL: 103, Aug  
Club Competition Rules and Contest Disqualification Criteria: 86, Jan  
Delaware: The First State Signs "200" (Pegritz): 49, May

Diamond Jubilee Award, ARRL (Lindholm and Jahnke): 59, Oct  
DXCC, The New Face of (Lindholm and Halprin): 51, Apr  
DX Century Club Rules: 52, Apr  
EME Competition, Results Eleventh Annual ARRL International (Lunt and Gamble): 85, May  
EME Competition, Rules ARRL International: 96, Sep  
Field Day Rules: 87, May  
Field Day 1988 (Lunt and Gamble): 79, Nov  
IARU HF World Championship, Results 2nd (Lunt and Wilson): 80, Feb  
IARU HF World Championship, Rules 3rd: 96, Apr  
International DX Contest Awards Program, ARRL: 86, Feb  
International DX Contest, Results 1988 ARRL (Lunt and Gamble): 91, Oct  
International DX Contest, Rules 1989 ARRL: 103, Dec  
June VHF QSO Party Plaque Program, ARRL: 88, May  
June VHF QSO Party Results, 1988 (Lunt and Gamble): 95, Dec  
June VHF QSO Party, Rules: 89, May  
November Sweepstakes Announcement, 55th ARRL: 106, Oct  
November Sweepstakes, Results 54th ARRL (Lunt and Gamble): 90, May  
Novice Roundup Announcement, 1988: 83, Jan  
Novice Roundup Results, 1988: 99, Jun  
RTTY Roundup Announcement, First ARRL: 88, Nov  
September VHF QSO Party Results, 1987 (Lunt): 79, Jan  
September VHF QSO Party, Rules: 101, Aug  
Straight Key Night 1987 (Gamble): 95, Apr  
VHF Contesting, The Adventure of (Roseman et al): 57, Jun  
VHF Sweepstakes, Results 1988 ARRL (Lunt and Gamble): 94, Jun  
VHF Sweepstakes, Rules 42nd January: 104, Dec  
UHF Contest Results, 1988 (Lunt and Gamble): 101, Dec  
UHF Contest Rules, 1988 ARRL: 92, Jul  
10-GHz Cumulative Contest, Announcing the Third ARRL: 102, Jun  
10-GHz Cumulative Contest, Results Second ARRL (Lunt and Burke): 80, Mar  
10-Meter Contest, Results 1987 ARRL (Lunt and Gamble): 87, Jul  
10-Meter Contest, Rules ARRL: 89, Nov  
160-Meter Contest, Results 18th ARRL (Lunt and Burke): 92, Apr  
160-Meter Contest, Rules ARRL: 90, Nov

## EDITORIALS

Band Planning: 9, Apr  
Black Thursday: 9, Oct  
Celebration of Sunspots, In: 11, Jan  
Challenges for the 1990s: 9, Jan  
Hurricane Gilbert: 9, Nov  
On We Grow!: 9, Aug  
QRM: 9, Jun  
Repeater Coordination Redux: 9, Sep  
RFI, Due Process, and: 9, Jul  
Rumors: 9, Feb  
TV Answer: What was the Question: 9, Mar  
Volunteer Examining, Five Years of: 9, May  
Vote of Confidence, A: 9, Nov  
435,000 Points of Light: 9, Dec

## FEATURE ARTICLES

### General Interest

ARRL Board of Directors, The 1988 Annual Meeting of the (Riley): 47, Mar  
ARRL Board of Directors, The 1988 Second Meeting of the (Riley): 58, Sep  
ARRL National Convention: Portland is Waiting for You, The 1988 (Kuhn): 55, Jul  
ARRL/VEC—A New Era, The (Place): 50, Jul  
ARRL/VEC "Test-Takers Q & A", The (Place): 61, Aug  
Beacons Revisited, 20-Meter (Stover): 60, Dec  
Beacon Subbands in the Amateur Bands Above 50 MHz, Realocating Unattended (Kirby): 50, Dec  
Bill: The Pirate Who Touched Our Hearts (Newkirk): 45, May  
Cake, a Present and Little Drink, A (Artingstoll): 48, Dec  
China Amateur Radio Link, Official Visit Strengthens US- (Sumner): 50, Jan  
Christmas—Cycle 22 (Vaughan): 52, Dec  
CRRL, Hail and Farewell to: 62, Apr  
Delaware: The First State Signs "200" (Pegritz): 49, May  
Diamond Jubilee Award, ARRL (Lindholm and Jahnke): 59, Oct  
Do You Remember These? (Trivia Quiz): 81, Apr  
Don't Fall Head Over Heels Because of Amateur Radio (Willeford): 54, Apr  
DXCC, The New Face of (Lindholm and Halprin): 51, Apr  
DXpedition, Notes on Organizing Your First (Talens): 64, Aug  
Eagle is QRV, The (Booth): 54, Sep  
Eclipse, The Brief Flight of the (Ford): 50, Nov  
Elmers Who Made a Difference: 57, Aug  
Ham Radio Remembered (Morrill): 49, Nov  
Instructor/Teachers of the Year 1987 (White): 47, Oct  
National Communications System Makes Use of Amateur HF Network (Hartsell and Stauffer): 68, Aug  
Novice Quiz Ain't So Trivial, This (White and Place): 70, Aug  
Packeteer Addictive Syndrome (Bailey): 46, Nov  
Radio for 1,000,000 Scouts (Place): 47, Feb  
Suncoast Seniors: The ARRL New-Ham Pilot Recruitment Project, Project (Riley): 15, Sep  
USSR, Radiosport in the (Efremov): 44, Mar  
USSR/Canada Polar Bridge Expedition (Atkins): 62, Jun  
USSR/Canada Polar Bridge Expedition Ends: 64, Aug  
VU2: Not Many Hams But Active (Eccles): 49, Feb  
W1AW Fund-Drive Bandwagon Rolls On!: 45, Nov  
W1AW, Get Ready for the New (Shima): 48, Apr  
W1AW Renovation Ready to Move Forward (Lindholm): 58, Dec  
W1AW Renovation Update (Lindholm): 64, Jun  
W1AW... Thanks: 56, Aug  
W1AW Vignette: 65, Jun; 53, Jul; 55, Aug; 49, Sep; 49, Oct  
W6AM Rhombic Antenna Farm Dismantled, The (Perkins): 62, Dec  
Yugoslavia, Amateur Radio in (Booth): 60, Apr

1987: A Year of Change and Challenge for Amateur Radio (Kilgore): 43, Feb  
220-222 MHz ARRL Fights On, FCC  
Reallocates (Sager): 45, Oct  
"610 to Gettysburg"... All Aboard the  
(Place): 50, Sep

#### Technical

AD7Iambic Cheap Keyer, The (Newland):  
38, Jun  
Anode Parasitic Suppression for Modern  
Amplifier Tubes, Improved (Measures):  
36, Oct  
Ammeter for Open-Wire Line, A Relative RF  
(Lau): 15, Oct  
Amplifier, A Low-Drive, Grounded-Grid  
3CX800A7 (Stevens): 22, Jul  
Amplifiers for 144 and 220 MHz, 25-Watt  
Linear (Mascaro): 15, Aug  
Audio RFI Problems, How to Deal with  
(DeMaw): 18, May  
Band-Pass Filters for HF Transceivers  
(Gordon): 17, Aug  
Blind, Amateur Radio and the (Bussen):  
38, Jan  
Blind, A Passport to Communications for the  
(Gisconi): 26, Feb  
Case of the Portable Hand-Held  
Transceiver, The (Goetz): 35, Dec  
Cheap n' Easy Modern, A (Miller): 15, Jun  
Coplanar-Twin-Loop Antenna (Villard)  
29, Sep  
Cordless Phone Link, The (Brachel):  
20, Mar  
CW Emergency Transceiver, A Three  
Channel (DeMaw): 17, Nov  
DTMF Encoder, A Multipurpose (Boller):  
32, Jul  
DTMF Decoder and SELCALL System,  
Professional Quality (Yakamavich):  
19, Feb  
Elevated Vertical Antenna Systems  
(Christman): 35, Aug  
Emergency Transceiver, A Three-Channel  
CW (DeMaw): 26, Oct  
Hidden Antennas—One Ham's Solution  
(Neu): 33, Mar  
HW-9 Transceiver, Improving the  
(Hutchinson and Lau): 26, Apr  
Impedance Bridges, A Dipper Amplifier for  
(Griffith): 24, Sep  
Kenwood SM-220 Monitor Scope, Automatic  
TR Switching For (Calvert): 24, Nov  
Log-Periodic Dipole Arrays for the Upper HF  
Bands (Collins): 21, Nov  
Low-Noise Receiving Antennas, On Ground  
(DeMaw): 30, Apr  
Measurements—How Big is That?  
(Macassey): 34, Jan  
Morse Keyboard, The CW6805—An  
Inexpensive Morse Keyboard (Oscarson):  
24, Dec  
Neophyte Receiver, The (Dillon): 14, Feb  
New Breed of Receiver, A (Breed):  
16, Jan  
Packet, Pictures by (Pratt and Yarbrough):  
15, May  
Parrot, The Electronic (Balmforth): 14, Dec  
PC-Board Production in the ARRL Lab  
(Miller and Pagel): 15, Apr  
Phase Noise and its Effects on Amateur  
Communications (Grebekemper):  
Part 1—14, Mar; Part 2—22, Apr  
Phase 3C: A New More Versatile OSCAR  
(Riportella): 22, Jun  
PK-232, The Inside Story of the (Forsyth):  
30, May  
Plastic, Build It Yourself—With (Kennedy):  
30, Aug

Power Supplies—Quick and Easy (Pagel):  
23, Feb  
Preamp for 80- and 160-M Loop and  
Beverage Antennas (DeMaw): 22, Aug  
QRP-Transmitter Design Tips, Some  
(DeMaw): 30, Feb  
RePlay Digital Voice Message System,  
The (Nelson): 31, Jun  
Roof-Rack Antenna, The Mobile (Dodds):  
29, Nov  
RTTY Programs for Atari Computers,  
Baudots and ASCII (Stuntz): 20, Sep  
RX Noise Bridges (Belrose): 34, May  
Spiderweb Quad, The (Suominen): 18, Oct  
Sporadic-E Opening of June 14, 1987,  
The Great (Owen): 21, May  
Sporadic-E Propagation at VHF: A Review  
of Progress and Prospects (Pocock):  
33, Apr  
Squelch Circuit, A Sensitive Integrating  
(Mandelkern): 27, Aug  
Talking Wattmeter, A (Kirk): 15, Jul  
Timer/Controller, A Versatile (Graham):  
25, Aug  
Toroids—Some Practical Considerations  
(DeMaw): 31, Dec  
Tox Box, The (Murphy): 30, Mar  
Transmitting Loops Revisited (DeMaw):  
27, Mar  
Traps for VHF Interference (Fleagle):  
25, Mar  
Tuning Indicator, A Simple (Miller and Hare):  
28, Jul  
TUs to Communications Processors,  
From (Abrams): 19, Apr  
Vertical-Antenna Mount, A Portable (Black):  
31, Dec  
VCR RFI, Joe Ham Versus (DeMaw): 34, Jul  
VFO, Accessories for Your (DeMaw):  
31, Jan  
12-Meter Beam, Build a Simple (Button):  
21, Oct  
2304 MHz, Getting from Here to There  
(Pocock): 15, Nov  
432-MHz Yagis, An Optimum Design for  
(Powlishen): 24, Jan

#### FEEDBACK

These items are not listed elsewhere in this  
index.

AD7Iambic Cheap Keyer, The (Newland—  
Jul 1988): 52, Aug  
Amateur Radio and the Blind, Part 1  
(Bussen—Oct 1987): 49, Jan  
DTMF Decoder and SELCALL System,  
Professional Quality (Yakamavich—Feb  
1988: 47, Apr; 42, Nov  
Elevated Vertical Antenna Systems  
(Christman—Aug 1988): 44, Oct  
HW-9 Tips: 32, Dec  
Linear Amplifier, An All-Band, 1500-Watt-  
Output 8877 (Pittenger—Oct 1986):  
52, Jun  
Packet Terminal for Atari Computers, A  
(Stuntz—Nov 1987): 49, Jan  
Preamp for 80- and 160-M Loop and  
Beverage Antennas (DeMaw—Aug 1988):  
44, Oct  
Phase Noise and its Effects on Amateur  
Communications (Grebekemper—Apr  
1988): 44, May  
Pin Diode-Switched Amplifier: 47, Apr  
Receiver, A New Breed of (Breed—Jan  
1988): 47, Apr  
RX Noise Bridge, A Laboratory-Style:  
42, Feb  
RX Noise Bridges: 43, Oct  
Tuning Indicator, A Simple: 48, Sep

UHF Amplifier—from Scratch, A: 44, May  
Vertical Antennas, Some Reflections on:  
42, Feb  
VCR RFI, Joe Ham Versus: 44, Oct

#### FM/RPT

Dear Stan: 76, Oct  
Feedback (The Readers Write): 76, Apr  
FM/RPT Column Survey: 68, Nov  
Frequency Coordinator, Make a  
Commitment: Support your Local:  
69, Jul  
How to Establish Your Repeater's Identity:  
65, May  
How to Reduce Your Repeater Telephone  
Bill: 64, Mar  
Repeater Directory, The Evolution of the :  
64, Feb  
Repeaters Serving the Public: 84, Jun  
Short Story—Or How Quickly You Run Out  
Of Space When You Install a Radio In  
Your Car, A: 67, Jan  
They Shoot Radios, Don't They?: 80, Sep  
220, How the Grinch Stole: 89, Dec  
220 FM, The Booming of: 85, Aug

#### HAPPENINGS

AM Band Expansion Update: 68, Jun  
Antenna Covenants, ARRL Files Comments  
on: 66, Sep  
Antenna Victory in Newport Beach,  
California: 67, Jun  
Army to Use 430 MHz in Huntsville,  
Alabama Area: 70, Dec  
ARNs Publication Contest: 54, May  
Around Headquarters: 55, Feb;  
ARRL Administrative HQ Anniversary:  
67, Sep  
ARRL/AMSAT Space Station Proposal:  
54, May  
ARRL Award Winners Announced: 54, Nov  
ARRL Best Sellers Announced: 68, Jun  
ARRL Board Elections—Call for  
Nominations, Second Notice—: 73, Aug  
ARRL Election Results (Nov 20, 1987):  
52, Jan  
ARRL Foundation Board Meets: 64, Apr  
ARRL Gold Mastercard Program, Take  
Advantage of a new Member Benefit—:  
70, Dec  
ARRL "Launches" New Publication:  
54, Nov  
ARRL Potpourri: 68, Sep  
Artists Take Note!: 68, Sep  
Baker, Beverly, Deputy Chief PRB : 64, Apr  
Beacon Subband Change, ARRL Files  
Petition for Automatic: 68, Dec  
Bodony Court Case Citation: 69, Jun  
Cancer, Concern Raised About RF Energy  
and: 55, Mar  
CB Operation, Michigan Man Sentenced for  
Illegal: 68, Sep  
Clark, Vic: W4KFC (SK), QWCA Honors  
68, Jun  
Congress Helps Hams, Heads Home:  
66, Dec  
Congressmen Yet?, Have You Written your:  
68, Sep  
CSCE Extensions, FCC Will Not Grant:  
63, Oct  
Dayton Award Winners Announced: 69, Jun  
Dayton Hamfest Facilities Expand: 70, Dec  
Dayton Scholarships Available: 56, Mar  
Element 4B Question Pool Changes:  
55, Feb  
England, Tony W0ORE, Retires from NASA,  
74, Aug  
England, Tony W0ORE, Visits ARRL HQ,  
54, May

Executive Committee Meeting: December 4, 1987: 53, Feb;  
 FAR Scholarships Announced: 55, Mar  
 FCC Broadcast Call Assignments: 54, Feb  
 FCC Fines Three for Illegal Operation: 67, Sep  
 FCC Form 610-B Extended: 70, Dec  
 FCC Fort Lauderdale Office Moves: 54, May  
 FCC Invalidates Licenses: 61, Jul  
 FCC "Luncheon" Meeting Held: 67, Sep  
 FCC LA Office Phone Number: 64, Apr  
 FCC Licensing Figures: 67, Sep  
 FCC Los Angeles Office Relocated: 54, Feb  
 FCC Loses Commissioner: 54, Feb  
 FCC Named, New Secretary of: 53, Nov  
 FCC Personnel Changes: 69, June  
 FCC, Petitions Denied by the: 67, Jun;  
 61, Jul; 74, Aug; 64, Oct; 54, Nov  
 FCC Tampa Office Moves: 69, Jun  
 Forest Service Extends Comment Period: 70, Dec  
 Forest Service Region Fee Proposal, Another: 54, Jan  
 Forest Service Regions, \$75 Fee Proposed by: 62, Oct  
 Foundation for Amateur Radio Scholarships: 54, Feb  
 Foundation for Amateur Radio Scholarship Winners: 62, Oct  
 Glasscock, Glen, W0FA, SK: 56, Mar  
 Goldwater Receives Amateur Ambassador Award: 54, Nov  
 Goldwater Scholarship Fund Contributions: 54, Jan; 55, Mar; 69, Jun  
 Haller, Ralph, N4RH, Chief of PRB: 53, Feb  
 Halprin Leaves HQ: 54, Nov  
 Henry, Bob, W0ARA, SK: 68, Jun  
 Hevener, Kitty, WB8TDA, Nominated for Award: 55, May  
 "Instant Novice" Petition Denied: 54, Feb  
 "Instant Novice" Petition, FCC Denies: 55, Mar  
 Insurance Program During Special Enrollment Period, Join ARRL "All-Risk": 68, Sep  
 Interference Pamphlet Available, New: 69, Jun  
 KA1OTG New Assistant Manager, DXCC Branch: 56, Mar  
 K3ZJ Named FCC Senior Attorney: 63, Apr  
 Korea, Christmas Third Party Agreement With: 55, Feb  
 Kowalski Leaves FCC: 55, Feb  
 League Members to Choose Board Representatives: 60, Jul  
 League Report to Industry: 65, Apr  
 License Hard to Read, Is Your Ham: 67, Sep  
 License Renewal: 68, Sep  
 Life Membership May Transfer to Spouse: 64, Apr  
 LMRE Meets, ARRL and: 53, May  
 Local CATV Pact Includes Ham Operators: 55, Feb  
 Membership Figures Up: 54, Feb  
 Montana SM Recall Fails: 53, Nov  
 Morse, Richard, W1GR, SK: 63, Oct  
 New-Ham Recruitment Group Visits Florida: 54, May  
 N1EOZ Joins HQ Production Staff: 69, Jun  
 N4BAQ Petitions ARRL Files Comments On: 54, Jan  
 NU0X New ARRL Letter Editor: 65, Apr  
 Ohi, Russel, N6DJG, SK: 55, Feb  
 Oops Dept: 69, Jun  
 Packet Message Forwarding, FCC to Continue HF Automatic: 56, Mar  
 Part 15 Changes, FCC Proposes: 53, Jan  
 Part 15 Proposals: Threat to Amateur Service?, FCC: 54, Mar

Part 97 Rewrite, Extension Granted in: 53, Nov  
 Part 97 Rewrite, FCC: 53, May  
 Parts 97 Rewrite Worth a Careful Look: 61, Jul  
 Part 97 Rule Change: 54, Jan  
 Plenipotentiary Conference, 1989: 64, Oct  
 Porter, Sr, Ambassador William J., K1YPE, SK: 68, Jun  
 PRB-1 Suit Filed in Colorado: 54, Jan  
 "Police Box" Petition, FCC Denies: 52, Nov  
 Reciprocal Call ID Update: 74, Aug  
 Reciprocal Reminder: 63, Oct  
 Recips Now Sign US Prefix First: 61, Jul  
 Repeat Nominating Solicitation: 64, Oct: 61, Nov  
 RF Lightning Devices, FCC Upholds Standards for: 53, Nov  
 Ridenour, Richard, KB0ZL, SK: 55, Feb  
 Rinaldo, Paul, W4RI, Named IEEE Senior Member: 54, May  
 Robinson, H. H. "Robbie", W4QR, SK: 68, Jun  
 Scholarships, Amateur Radio: 54, May  
 Scholarships Available, 31: 64, Apr  
 Scouts!, Attention: 62, Oct  
 Scouting Enthusiasts!, Attention: 62, Oct  
 Section Manager Election Notice: 54, Jan; 55, Feb; 66, Apr; 56, May; 62, Jul; 64, Oct; 61, Nov  
 Section Manager Election Results: 56, Jan; 55, Feb; 56, May; 70, Dec  
 Special Events Communication Manual Available: 68, Jun  
 South Korea, Temporary Third-Party Agreement with: 63, Oct  
 Southern and Intermountain Regions Fee Updates: 53, Feb  
 TAI Reply Comments be Stricken, ARRL Asks: 62, Jul  
 Telephone RFI Filter from AT&T: 69, Jun  
 Ten-Kilowatt CB Amplifier Seized: 54, Feb  
 Tricarico Leaves Commission: 56, Mar  
 TV Answer Petition, ARRL Files Reply Comments to: 69, Jun  
 TV Answer, More on: 63, Apr  
 UPS, ARRL Files Reply Comments to: 67, Jun  
 UPS Comments, FCC Accepts: 53, May  
 VEC Conference Held in Texas: 73, Aug  
 VEC Streamlined: 63, Apr  
 Volunteer Counsels!, Are You a Lawyer? ARRL Needs: 64, Oct  
 Washington State Hams Get a Rent Break: 55, May  
 WA2CCN New Lab Supervisor at HQ: 65, Apr  
 W4UWH Fine, FCC Upholds: 54, May  
 W4VT SK, QST Classic Fiction Author: 53, Nov  
 Westlink Young Ham of the Year Winner Announced: 54, Nov  
 Wicker, L. Phil, W4ACY, Honorary Vice President: 65, Apr  
 Windom, General Loren G., W8GZ, SK: 64, Apr  
 17-Meter Band, ARRL Petitions for Early Entry to: 68, Dec  
 17 Meters One Step Closer to Reality: 53, Nov  
 30 Meters, ARRL Files Comments Against SSB on: 66, Sep  
 87-14, Amateur Interests Supported by DoD/NCS in: 61, Jul  
 87-14, ARRL Files Petition for Reconsideration in: 67, Dec  
 87-14, FCC Issues Report and Order in: 52, Nov

87-14, ARRL Submits Ex Parte Presentation on: 61, Jul  
 87-14, PRB-3 News: 53, Jan  
 "200" Call Signs, FCC Authorizes Additional: 54, Jan  
 220-MHz Threat, Another: 54, Mar  
**HINTS AND KINKS**  
 Antenna at K6EHZ, A Broadband: 45, Apr  
 Antenna for 2 Meters, A Burglar-Alarm-Tape: 47, Jun  
 Antenna for 440-MHz Mobiling, A Window-Mounted Tape: 48, Jun  
 Antenna, An Indoor Dipole: 42, Oct  
 Apex Template, Speed Antenna Repair with an: 40, May  
 Award Endorsements, Keeping Track of: 44, Apr  
 Batteries, Conductive Plastic Can Discharge: 47, Jun  
 Battery Charging, A One-Shot Timer for: 47, Jun  
 Battery Packs, A Source of: 44, Jul  
 Braid, File Comb Straightens: 45, Apr  
 Butternut Vertical Antenna on 160 Meters, Putting the: 40, Oct  
 Circuit Boards, Etch-Resist Pens for Home-made: 44, Sep  
 Circuit-Board Fabrication Techniques for Success, Blending: 44, Sep  
 Cleaning Key Contacts: 40, Mar  
 Coaxial Cable, Flexing Damages: 45, Jan  
 Coaxial Hood, Tubing Reducer Replaces: 40, Mar  
 Coil Dope, Home-made: 41, Oct  
 Coil Windings in Place, Double-Stick Tape Keeps: 44, Apr  
 Coils, Quick Forms for Small, Adjustable: 46, Jul  
 Connector Protection, Inexpensive: 44, Jul  
 Cooling Fans, Safety Screen for: 45, Apr  
 Current Limiter for Equipment Testing, A Simple: 38, Nov  
 C64 Program Cartridges, A Leg for: 44 Apr  
 DC Adapter for Hand-Held-Transceiver Mobiling, A: 48, Jun  
 Deep-Cycle Battery as an Emergency Power Source, A: 41, Mar  
 DIP Switches Easy, Switch Key Makes Resetting: 39, Oct  
 Doorbell Alert Alarm, A: 39, Nov  
 Drake TR-7 and TR-7A Transceivers with Full-Break-In Amplifiers: 36, Nov  
 DXpedition Antennas, A Cheap, Crushproof Carrier: 41, May  
 Electric-Fence Insulators Also Work for Antennas: 44, Jul  
 Equipment Fans, Quieting by Series Wiring: 41, May  
 GaAsFET Preamps, Better Transmit Protection for: 45, Dec  
 Generator-Overvoltage Protector, Safer Operation for the Field-Day: 49, Jun  
 Gloves, Modified Work: 40, May  
 Heat-Shrink Material, Use QST Mailing Bags as: 45, Apr  
 Heath HR-1680 Receiver as a CW Monitor, Using the: 39, Oct  
 Heath HW-5400 Transceiver, Improving RIT and Split-Frequency Operation in the: 42, Sep  
 Heath SB-220/221 Amplifier, "No Holes" Standby Switch Modification for the: 45, Sep  
 High-Voltage Metering, Stable: 43, Dec  
 HW-101, Eliminating Dial-Drive Clutch Slippage in the: 41, Mar  
 HW-5400 Speedy Tune: 43, Sep  
 IC Pinouts on Circuit Boards: 40, Mar



IC-2AT Battery Packs Easier, Four Cuts Make Changing: 40, Feb  
 ICOM IC-735 Transceiver, Smoother RF Power Control with the: 48, Jun;  
 Correction to the IC-735 Power Control Hint: 45, Sep;  
 IC-745 Transceiver, Two Notes on the: 40 Nov  
 Inductance Measurements, Stray Capacitance Affects: 44, Sep  
 Kenwood TR-7930/7950, Automatic Scanning for the: 39, Feb  
 Kenwood TW-4000A Transceiver and MC-48 Microphone, Receive-only Up/Down Operation with the: 39, Nov  
 Key Clicks, Reducing: 39, Oct  
 Keyer-Paddle Stability, Neoprene Foam Aids: 50, Aug  
 Keying Speeds with a Bug, Slower: 49, Jun  
 Knife-switch Resistance Fix: 41, May  
 Knobs on 3/16-inch Shafts, Putting: 44, Apr  
 Magnetic-Mount Antennas, Preventing Scratches from: 50, Aug  
 Measure Frequencies with your Rig's 10-Hz-Resolution Frequency Display, How to: 45, Jul; Correction to the Frequency Measurement Hint: 50, Aug  
 MFJ 900 Series Antenna Tuners for 160 Meters, Modifying the: 43, Dec  
 Mount Parts, Using Heat and Cold: 45, Apr  
 Multipin Connectors, Quick Replacement for: 45, Jan  
 Neutralizing Indicator, Using a Receiver as a: 40, Mar  
 Noise Bridge Aids Transmitter Output Network Adjustment: 39, Nov  
 Noise Bridge Audio Links: 44, Dec  
 Outboard Speaker, Better Audio Quality From an: 41, Mar  
 Panel Labeling, Some Thoughts on: 44, Dec  
 Panel Labels, Applying Dry-Transfer: 44, Apr  
 PC Board Fabrication with Predrilled Holes: 45, Dec  
 PC Boards, Use an End Mill to Remove Copper from: 46, Jul  
 Pin Marking for Computer Connectors: 40, May  
 PK-232, Simple CW/RTTY Mode Changes with the AEA: 43, Dec  
 PL-259 Theme, Variations on the: 47, Aug  
 Power Supply for 24- to 28-Volt Relays, Quick: 49, Jun  
 Power-Supply Noise, Bypass Capacitors Cure: 44, Jul  
 Prototyping Easy, Adhesive Pads Make Quick: 41, Oct  
 Resistor Substitution for Beginners: 40, May  
 RFI from a Multi-Outlet Box: 41, Oct  
 RFI, Unpowered Computer Generates: 38, Nov  
 ROBOT 800C as an Electronic Typewriter, Using the: 40, Feb  
 Rodent-Repeller Interference, Curing: 44, Jul  
 Roller-Inductor Slider Switches Output Capacitance: 40, Feb  
 SB-220 Amplifier with Solid-State Transceivers, Using the: 45, Jan  
 Seal Or Not To Seal, To: 39, Feb  
 Shield Chokes for Coaxial Cable: 41, Mar  
 Shielding, Aluminum Gutter Screening for: 45, Apr  
 Simple and Inexpensive Motor for Crank-Up Towers: 40, Mar  
 Source-Follower Amplifiers, Increased Gain for: 45, Apr  
 Stainless Steel, Soldering to—Almost: 40, Mar

Street-Lamp Interference, ... And: 40, Jul  
 Telephone RFI Cure, Another: 44, Apr  
 Ten-Tec Argosy 525, Curing Mechanically Induced Frequency Jumps in the: 40, Oct  
 TNC Connect Alarm, A: 39, Feb  
 TNC Connect Alarm, Improving the: 45, Sep  
 Toroidal Cores for Less Oscillator Drift, Choosing: 39, Oct  
 Transformer Hum: 40, Feb  
 TS-430S Memory Button, A Guard for: 40, Oct  
 TS-430S, Improved Master-Oscillator Calibration for the: 45, Jul  
 Tubing Reducer Replaces Coaxial Hood: 40, Mar  
 "Turn-On", Improvements to "A Real": 37, Nov  
 TV Fundamental Overload, Modified 300-Ohm High-Pass Filter Reduces: 40, May  
 TVI, Whistle-Switch: 45, Apr  
 Umbrella, Antenna, An: 44, Dec  
 Using a Receiver as a Neutralization Indicator: 40, Mar  
 Whip, The Whippy: 43, Sep  
 Zero-Beat Indicator, Use Your Transceiver's Notch Filter as a: 45, Jul

#### HOW'S DX?

Contest Operating: 69, Sep  
 DXAC News: 57, Jan  
 DXing for Little Guns: 67, Apr  
 Handling a Pileup: 67, Oct  
 K4KGR's Return to Guadalcanal: 57, Mar  
 LA5HE's Commandments for QSL Managers: 77, Aug  
 My Trip to the United States: 71, Jun  
 Turkey-USA on 160 Meters: 57, Nov  
 US/USSR DXpedition, A Joint: 65, Jul  
 Western Sahara Operation: 59, Feb  
 Worldradio DXathon, 1989: 72, Dec

#### IARU NEWS

CEPT Licenses—Will They Spread Throughout the World?: 72, May  
 Common Licensing, Views on: 78, Apr  
 Direction-Finding Championships, Amateur Radio: 74, Nov  
 German Hamfest at Friedrichshafen: 74, Sep  
 IARU Stand at Telecom-87, The: 68, Feb  
 International Amateur Radio in Birmingham: 85, Oct  
 International Round-Up: 95, Aug  
 Regional Conferences of the IARU: 89, Jun  
 ROARS Celebrates an Anniversary: 68, Mar  
 WARC-ORB: 71, Dec

#### KEYING AND CONTROL CIRCUITS

AD7Iambic Cheap Keyer, The (Newland): 38, Jun  
 Cordless Phone Link, The Brachel (Brachel): 20, Mar  
 DTMF Encoder, A Multipurpose (Boller): 32, Jul  
 DTMF Decoder and SELCALL System, Professional Quality (Yakamovich): 19, Feb  
 Morse Keyboard, The CW6805—An Inexpensive Morse Keyboard (Oscarson): 24, Dec  
 Squelch Circuit, A Sensitive Integrating (Mandelkern): 27, Aug  
 Timer/Controller, A Versatile (Graham): 25, Aug  
 Tox Box, The (Murphy): 30, Mar

#### MEASUREMENT AND TEST EQUIPMENT

Impedance Bridges, A Dipper Amplifier for (Griffith): 24, Sep  
 Kenwood SM-220 Monitor Scope, Automatic TR Switching For (Calvert): 24, Nov  
 Measurements—How Big is That? (Macassey): 34, Jan  
 Phase Noise and its Effects on Amateur Communications (Gebenkemper): Part 1—14, Mar; Part 2—22 Apr  
 Wattmeter, A Talking (Kirk): 15, Jul

#### NEW BOOKS

ABCs of Electronics (Waters): 52, Feb  
 Audio Engineering Handbook (Benson): 30, Dec  
 Communications Receivers: Principles and Design (Rohde and Bucher): 21, Aug  
 Contemporary Electronics Circuits Desk-book (Helms): 46, Jan  
 Electronic Circuit Fundamentals (Weir and Weir): 39, Apr  
 Ferrell's Confidential Frequency List (Halligey): 53, Aug  
 Fundamentals of Mathematics—Outline and Review Problems for Electronic Circuit Fundamentals (Weir and Weir): 39, Apr  
 Guide to Utility Stations (Klingenfuss): 53, Aug  
 Handbook of Practical IC Circuits (Helms): 29, Mar  
 History of QRP (Weiss): 29, May  
 K1BV Awards Directory, The: 57, Dec  
 Packet Radio Handbook, The (Mayo): 46, Jan  
 Radio Collector's Directory and Price Guide, The (Grinder and Fathauer) 46, May  
 Radio's First Two Decades (Cologne Press): 43, Mar  
 Transmitter Hunting (Moell and Curlee): 52, Feb

#### NEW PRODUCTS

A & A Engineering Digital Frequency Synthesizer: 37, Jan  
 A & A Engineering 8-Bit A/D AM Demodulator: 39, Mar  
 ACC RC-96 Repeater Controller: 44, May  
 Advanced Radio Devices HF Linear Amplifier: 25, Apr  
 AEA RFM-220™ 220-MHz Radio Modem: 37, Jan  
 Ameco PT-3 Preamplifier: 46, Mar  
 Antenna Specialists RF Power Dividers: 39, Mar  
 ARD Heavy Duty Antenna Rotator: 41, Sep  
 Bencher Low-Pass Filter: 39, Mar  
 Call-sign Display, Engraved: 52, Aug  
 CES Autopatch, New: 40, Nov  
 CIRE Electronics Voice Keyer: 21, Jul  
 Codemaster Morse Code Program: 46, Mar  
 Commodore Diagnostician: 37, Jan  
 Communications Specialists CTCSS Encoder/Decoder: 35, Oct  
 CMOS Cadet Keyer: 21, Jul  
 Creative Control Products SRC-10 Repeater Controller: 52, Feb  
 Curtis 8044ABM CW Keyer Kit: 63, Dec  
 Dressler ARA 900 Active Antenna: 49, Jul  
 Electron Processing, Inc Ultimate Mobile Speaker: 32, Mar  
 Electronic Specialists Lap-Top Transient Suppressor: 35, Oct  
 ERSA MS 6000 Soldering Station: 44, Jan  
 GGT Morse Tutor for the IBM® PC and Compatibles: 49, Jul  
 GLB Netlink 220 High-Speed 220-MHz Data Transceiver: 29, Feb

Gorden West's Radio School Technician Class License Course: 54, Aug  
 Ham IV Rotator Brake Wedge, New: 40, Nov  
 Heath Dual-Band Hand-Held Transceiver: 48, Sep  
 Hi-Spec UHF Linear Amplifiers: 54, Jul  
 Hustler Mag-Mounts: 20, Mar  
 Hustler 10-Meter and WARC-Band Mobile Antennas: 22, Feb  
 ICOM EX-627 Automatic HF Antenna Selector: 54, Aug  
 ICOM IC-12GAT: 61, Dec  
 ICOM IC-3210A Dual-Band FM Mobile Transceiver: 54, Aug  
 ICOM IC-448: 61, Dec  
 ICOM 2-Meter FM Mobile Transceivers: 21, Jul  
 International Radio Memory Bank Control for the TS-940S: 49, Jul  
 International Radio 8-Pole Crystal Filters: 37, Jan  
 Kalglo Electronics DPC+ Power Console: 49, Jul  
 Kalglo RS-232 Data-Line Surge Suppressor: 46, Mar  
 Kantronics MAXFAX EPROM Update: 59, Apr  
 Kenwood TM-621A and TH-55AT FM Transceivers: 21, Jul  
 Kilo-Tec, Nevada High-Voltage Variable Capacitors from: 41, May  
 MN Antenna Analysis Software for the IBM PC: 41, Sep  
 Naval Electronics HT Audio Booster: 52, Aug  
 Network Series-1000 "Ringrotor" Antenna Mount: 37, Jun  
 NIC Surface-Mount Component Kits: 59, Apr  
 Novice Welcome Package: 46, Mar  
 Packet Radio Plug-in TNC and HF Modem for IBM PCs: 35, Sep  
 Periphex NiCd Battery Pack for Kenwood Hand-held Rigs: 57, Dec  
 Realistic PRO-2004 300-Channel Scanner: 34, Mar  
 RF Concepts 440-MHz Power Amplifiers: 49, Jul  
 Satellite Transverters (Transverters Unlimited): 32, Dec  
 Signal Tracer, Magnetic-Pickup Audio: 25, Oct  
 SSC, SSTV and HF Fax Software from: 32, Dec  
 Stone Mountain Engineering Frequency Control Keypad: 52, Jun  
 TRIDCS Software "Terminator" Program for the IBM® PC: 22, Feb  
 TS-COMM Communications and Control Software for Kenwood Radios: 37, Jun  
 Universal Radio Amateur Products Catalog: 17, May  
 Universal Shortwave, Shortwave Receiver Reference Manual from: 17, May  
 Vehicular Call-Sign Displays: 48, Sep  
 Video Training Course, Novice Class: 44, May  
 WD4BUM M-300 Series Mobile Antennas: 40, Nov  
 Yaesu NiCd Battery Packs, Replacement: 52, Jun

#### NOVICE NOTES

Before Your Ticket Arrives (Wyatt): 43, Nov  
 Inside Antennas—Do They Really Work? (Kilgore) 55, Dec  
 10-Meter E Skip?, Are You Ready for (Newkirk): 57, Apr

#### ORGANIZATIONAL

ARRL Board of Directors, The 1988 Annual Meeting of the (Riley): 47, Mar  
 ARRL Board of Directors, The 1988 Second Meeting of the (Riley): 58, Sep  
 ARRL National Convention: Portland is Waiting for You The 1988 (Kuhn) 55, Jul  
 Financial Statements Released, Audited ARRL: 67, May  
 W1AW Fund-Drive Bandwagon Rolls On: 45, Nov  
 W1AW, Get Ready for the New (Shima): 48, Apr  
 W1AW Renovation Ready to Move Forward (Lindholt): 58, Dec  
 W1AW Renovation Update (Lindholt): 64, Jun  
 W1AW... Thanks: 56, Aug  
 W1AW Vignette: 65, Jun; 53, Jul; 55, Aug; 49, Sep; 49, Oct

#### At the Foundation (column)

Bennett, Bill, W7PHO Story, The: 47, Nov  
 Building Upon a Great Foundation: 55, Jun  
 Happy 15th Anniversary, ARRL Foundation!: 52, Sep  
 Many Scholarships Available: 51, Jul  
 Meet Our 1988-89 Scholarship Recipients: 64, Dec  
 Now, That's An Incentive: 60, Oct  
 Where to Place Your Trust: 71, Aug

#### Moved and Seconded

Board of Directors Minutes, Jan 22-23, 1988: 49, Mar  
 Board of Directors Minutes Jul 21-22, 1988: 60 Sep  
 Executive Committee Minutes  
 No. 428, Dec 4-5, 1987: 56, Feb  
 No. 429, Mar 19, 1988: 51, May  
 No. 430, May 14, 1988: 63, Jul  
 No. 431, Aug 27, 1988: 55, Nov  
 Life Members Elected:  
 Dec 4, 1987: 57, Feb  
 Mar 19, 1988, 52: May  
 May 14, 1988, 73: Jul  
 Errata to the Minutes  
 Annual Meeting, Jan 22-23, 1988: 59, Apr  
 1988 Second Meeting, Jul 21-22, 1988: 65, Oct

#### PACKET RADIO

Cheap n' Easy Modem, A (Miller): 15, Jun  
 Packet Radio Frequency Recommendations of the Committee on Amateur Radio Digital Communications: 51, Mar  
 Pictures by Packet (Pratt and Yarbrough): 15, May  
 PK-232, The Inside Story of the (Forsyth): 30, May  
 Tuning Indicator, A Simple (Miller and Hare): 28, Jul  
 TUs to Communications Processors, From (Abrams): 19, Apr

#### PRODUCT REVIEW

A & A Engineering Deluxe Memory Keyer Kit: 35, Nov  
 A & A Engineering's Smart Battery Charger: 46, Aug  
 AEA PK-232® Multi-Mode Digital Communications Terminal: 41, Jan  
 Ameco PT-3 1.8-54 MHz Preamplifier: 44, Apr  
 Creative Design CLP5130-1 VHF/UHF Log-Periodic Antenna: 45, Aug  
 Heathkit® HK-232 Packet® Multi-Mode Digital Communications Terminal: 43, Jan

Heathkit SA-2550 Remote Antenna Matcher: 43, Aug  
 Heath SB-1000 HF Linear Amplifier: 33, Feb  
 ICOM IC-375A 220-MHz Multimode Transceiver: 35, Mar  
 ICOM IC-575A 50- and 28-MHz Multimode Transceiver: 33, Nov  
 ICOM IC-761 160- to 10-Meter Transceiver: 36, Sep  
 ICOM IC-900 Multiband VHF-UHF FM Mobile Transceiver: 37, Dec  
 Japan Radio Company NRD-525 General-Coverage Receiver, The: 40, Jul  
 Kalglo Telephone Line/Modem Surge Protector: 32, Apr  
 Kenwood AT-250 Automatic Antenna Tuner: 34, Oct  
 Kenwood R-5000 General-Coverage Receiver: 35, Feb  
 Kenwood TM-221A/321A/421A VHF/UHF FM Transceivers: 37, Jul  
 Kenwood TS-140S 160- to 10-Meter Transceiver: 42, Jun  
 Kenwood TS-680S 160- to 6-Meter Transceiver: 31, Oct  
 MFJ Multi-Mode Data Controller: 32, Apr  
 MFJ-931 Artificial RF Ground: 40, Apr  
 NCG Triband Base and Mobile VHF/UHF Antennas and Triplexer: 32, Apr  
 RF Concepts RFC-2-23 and RFC-3-22 Solid-State 144- and 220-MHz Amplifiers: 37, Mar  
 RF Concepts RFC 3-312 220 MHz Amplifier: 42, Apr  
 Ten-Tec Model 585 Paragon 160-10 Meter Transceiver: 36, May  
 Yaesu FT-212RH 2-Meter and FT-712RH 70-cm FM Transceivers: 40, Dec

#### PUBLIC SERVICE

Amateur Radio Operators And Emergency Managers—A Partnership In Emergency Response (Masa): 84, May  
 Emergency Communication: Is It Legal (Mitchell): 54, Oct  
 Emergency Planners Take the Exam (Ewald): 57, Jul  
 Hams and Public Service: NWS Wants You (Ochu): 47, May  
 Military Affiliate Radio System, The: 84, May

#### Public Service (Column)

Butane Explosion!: 85, Jun  
 Day the Pope Came to Town, The: 74, Jan  
 Forest Fire!: 77, Mar  
 National Disaster Medical System Exercise, NJ/PA Amateur and 63 Hospitals Participate in Six Day: 75, Jul  
 National Traffic System—Part 1, The History of the: 69, Nov  
 The Painless QNI: Being an NCS: 81, May  
 NTS—An Opinion, Future Shock in the: 83, Sep  
 Public Service Opinion, A: 90, Aug  
 Running on the Edge... of the Western World: 80, Oct  
 Slow Speed Nets: Learning the Fundamentals of Handling Traffic: 77, Feb  
 TCC—The Long Distance Connection: 80, Dec  
 "Tornado on the Ground!": 89, Apr  
 Weather-Wise, Severe Storms: The Art of Being: 81, Sep

#### REGULATIONS

ARRL/VEC—A New Era, The (Place): 50, Jul

ARRL/VEC "Test-Takers Q & A",  
The (Place): 61, Aug  
Novice Quiz Ain't So Trivial, This  
(White and Place): 70, Aug  
Rewrite of Amateur Rules (PR 88-139), FCC  
Announces (Sager): 53, Jun  
220-222 MHz ARRL Fights On!, FCC  
Reallocates (Sager): 45, Oct  
"610 to Gettysburg"... All Aboard the  
(Place): 50, Sep

#### Washington Mailbox

Amateur Operation on the High Seas:  
78, Oct  
Amateur Testing for Persons with  
Disabilities: 69, Dec  
Autopatches and the Radio Amateur:  
78, Jun  
Zoning Ordinances and Restrictive  
Covenants: Making Your Presentation:  
93, Aug

#### SATELLITES

OSCAR 13 Report Card: 48, Oct  
Phase 3C: A New More Versatile OSCAR  
(Riportella), Introducing: 22 Jun

#### Amateur Satellite Communications

OSCAR, Getting On the New: 85, Sep; 83,  
Oct; 72, Nov  
OSCAR, Working the New: 90, Dec  
Phase 3C: Newest High Flyer Debuts Soon,  
Introducing: 70, Feb Phase 3C Operating  
Schedules: 86, Apr  
Phase 3C: "Superbird" Soon!, Introducing:  
74, Mar  
Phase 3C: What Do You Need to Work It?:  
76, May  
RUDAK User Terminals, The AMSAT:  
88, Aug  
RUDAK—What Is It?: 80, Jul  
Russian Satellite Sparks Interest Surge:  
Part 3, New: 61, Jan

#### SPECIALIZED COMMUNICATIONS TECHNIQUES

Cheap n' Easy Modem, A (Miller): 15, Jun  
Packet, Pictures by (Pratt and Yarbrough)  
15, May  
RTTY Programs for Atari Computer, Baudot  
and ASCII (Stuntz): 20, Sep  
TUs to Communications Processors, From  
(Abrams): 19, Apr  
Tuning Indicator, A Simple (Miller and Hare):  
28, Jul

#### TECHNICAL CORRESPONDENCE

Alkaline, Born-Again: 41, Nov  
Choke Info, More: 51, Jun  
Commodore User's Group Address: 48, Sep  
Compatible ALC: 41, Feb  
Cordless Phone DXing, 42, May  
C64 WEFAH Improvements: 47, Jan  
Dielectric Material: 52, Jun  
DIGI-CAT is Back, The: 42, Mar  
Diode Failure: 46, Apr  
Diode, Overpowered: 47, Jul  
Direct-Conversion Receiver Notes: 46, Sep  
Disabled Amateur, Computer Assistance  
for the: 47, Jul  
DTMF Decoder Noise Sensitivity: 47, Sep  
Dummy Load, A Low-Cost 1500-W: 43, Mar  
DX-60 Switch Update: 48, Sep  
Extended Double-Zepp Calculations:  
51, Aug

Extended Double Zepp, Scaling the:  
47, Dec  
Filter Design, Passive: 51, Aug  
Heath SB-1000 Comments: 47, Jul  
HW-9 Tips: 43, Oct  
Light-Dimmer Interference Reduction:  
51, Jun  
Meter-Protection Circuit: 42, May  
Morsemaster II is Back: 48, Jul  
Moon and Ions(?), The: 47, Apr  
Moon, More About the: 47, Dec  
Network Transformer Exposed!: 42, Nov  
NiCd Cells, Resurrecting: 43, May  
PC Boards Revisited: 42, May  
PCB, Testing for: 43, Oct  
Phasing Receivers, Comments on: 52, Jun  
PIN Diode-Switched Amplifier: 42, Feb  
Receiver Dynamic Range with a Square-  
Wave Local Oscillator, Improving: 43, Oct  
RF Ground, What is an: 51, Aug  
RF Rectification, Sniffing Out: 46, Dec  
RFC Design: 50, Jun  
RS-232-C, Easy: 46, Apr  
RTTY Software Comments: 43, Mar  
Schottky Diode Update: 43, May  
Semiconductor Devices Catalog on Disk:  
41, Nov  
Smoke Report, Daily: 42, Nov  
Snake Antenna, More on the: 41, Nov  
Surge Protector?: 46, Dec  
Tandem Match Corrections: 49, Jan  
Tandy Consumer Services: 41, Feb  
Telephone RFI—Thanks!: 50, Jun  
Toroidal Core Characteristics, Estimating:  
47, Jul  
Touch-and-Glow Lamps, Taming: 42, Mar  
Transmatch with Open-Wire Line, Using a  
Coax: 43, May  
Transmission Lines, Matching Receivers to:  
46, Sep  
User-Friendliness: 46, Dec  
Werewolves, No: 47, Dec  
Williams Synthesizer Use: 48, Jul  
Yaesu FT-980 Batteries: 50, Jun  
2N3553 Substitute, A Possible: 47, Sep  
10-GHz Frequency Determination: 41, Feb  
811A Tube Replacements: 42, Nov

#### VHF AND MICROWAVES

Amplifiers for 144 and 220 MHz,  
25-Watt Linear (Mascaro): 15, Aug  
Beacon Frequencies Proposal, VHF/UHF:  
81, June  
Beacon Subbands in the the Amateur  
Bands Above 50 MHz (Kirby): 50, Dec  
432-MHz Yagis, An Optimum Design for  
(Powlishen): 24, Jan  
2304 MHz, Getting from Here to There  
(Pocock): 15 Nov

#### The New Frontier

Antenna and Noise Figure Measurement  
Results, CSVHF: 65, Nov  
Attenuators: 72, Jul  
Colorado Activity Report: 72, Apr  
Conference Proceedings: 63, Jan  
Equipment Design, Some Thoughts on:  
63, Jan  
Laser Communication: 69, May; 75, Sep;  
88, Dec  
Local Oscillator Design: 89, Aug  
Microstripline Circuitry: 80, Jun  
Microwave News, Other: 74, Oct  
New Frontier Index: 66, Mar  
Optical Communication: 75, Sep

PIN Diodes as RF Switches: 68, May  
Thermistor Power Metering: 86, Aug  
Transverter News: 72, Apr  
Transverter Update: 65, Feb  
1.3 GHz ATV Transmitter: 89, Aug  
2.3-GHz Amplifier: 89, Aug  
10-GHz Activity, West Coast: 74, Oct  
10-GHz DX, East Coast: 64, Nov  
10-GHz EME Activities: 69, May; 86, Aug;  
64, Nov  
24-GHz Activity: 86, Aug  
47 GHz, New World Record on: 87, Dec  
1296-MHz Transverter, More on the:  
66, Mar  
3456-MHz DX Record, New USA: 64, Nov

#### The World Above 50 MHz

Activity Nights—An Idea Whose Time Has  
Come and Stayed: 66, Nov  
Boxes, The: 82, Jun  
FM and VHF DXing: 70, Jul  
Gridexpeditioning—It Can Be Easy and  
Fun: 77, Sep  
Need There Be Line of Sight: 74, Apr  
VUCC—A Worldwide Award: 83, Dec  
World Above 50 MHz—How Can it be  
Improved, The: 82, Aug  
6-Meter DX Window, A: 64, Jan  
6-Meter DX Window—Let's Give It A Try, A:  
66, May  
6-Meter DX Window—The First Three  
Months: 72, Oct  
6-Meter DX Window?, Why Not a: 66, Feb  
6-Meter Propagation Mode, Another:  
62, Mar

#### YL NEWS AND VIEWS

CP5LE Discovers New Missions Through  
Amateur Radio: 79, Apr  
HK5AZA Leads Expedition to Save the  
Magdalena River: 87, Sep  
Iowa's Tall Corn and Abundant Hospitality  
Greet SSBers: 75, May  
Japan Ladies Radio Society Celebrates 30th  
Anniversary: 86, Oct  
KA1LDS Recommends the Novice Round-  
up: 78, Jul  
KG5CS Carries on a Family Tradition of  
Achievement: 75, Nov  
NO9A, If We Can Do It, So Can You Myrtle:  
72, Feb  
W2CDS, Women's Rights Movements  
Celebrated by: 98, Aug  
WA8EBS Brings Amateur Radio to YLs at  
Cleveland Hamfest: 93, Dec  
YL-OM Contest Results, 1987: 68, Jan  
YLRL Officers, 1988-1989: 69, Mar  
YLs Around the World: 90, Jun

#### MINI DIRECTORY INDEX

Advisory Committee Members: 55, May  
Club Contest Rules: 86, Jan  
Diamond Jubilee Award: 59, Oct  
Frequency/Mode Allocations: 77, Jan  
Hamfest Calendar Rules: 73, Apr  
License-Renewal Information: 77, Jan  
Major ARRL Operating Events and  
Conventions: 78, Jan  
QSL Bureaus Incoming: 74, Dec  
Outgoing: 71, Sep  
Reciprocal-Operating Agreements: 63, Oct  
Third-Party-Traffic Agreements: 63, Oct  
VUCC Annual Listing: 85, Dec

